

REMARKS

The Office Action mailed on June 04, 2003, has been reviewed and the comments of the Patent and Trademark Office have been considered. Prior to this paper, claims 1-17 were pending in the present application. By this paper, Applicants add claims 18-37. Therefore, claims 1-37 are now pending in the present application.

Applicants respectfully submit that the present application is in condition for allowance for the reasons that follow.

Objection to the Drawings

The drawings are objected to. In response, Applicants have amended Fig. 2 by replacing "2L" with "19." Applicants have further amended Fig. 6 to delete reference "d1" and "d2."

In regard to the objection relating to the use of "L" and "R," Applicants respectfully submit that these are not reference signs, but abbreviations indicating left and right. Further, Applicants have amended the specification to reference these abbreviations.

In regard to the objection against Figs. 2, 10 and 15, Applicants have amended Figs. 2 and 15 as seen above.

In regard to the objection relating to the language referring to "50b" in the specification, Applicants have amended the specification to remove the reference to "50b."

Applicants respectfully request reconsideration of the drawing objections in view of the above amendments and explanations.

Rejections Under 35 U.S.C. § 112

Claims 12 and 14 were rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Applicants have amended claim 11, as seen above, to recite that the first and second beam paths are superimposable onto respective third *and fourth* beam paths.¹ Applicants submit that the specification and the figures do indeed reasonably convey to the skilled sojourner that Applicants had possession of the invention.

Claims 11 and 12, as amended, find written support in Fig. 27, which shows, in an exemplary manner, a first beam path 2a, a second beam path 2b, where the paths 2a and 2b are superimposable onto a third beam path 1a/1c and a fourth beam path 1b/1d, respectively. Therefore, Applicants submit that all of the recitations of claims 11 and 12 can be found in Fig. 27, and thus the rejection of claims 11 and 12 under 35 U.S.C. §112, first paragraph, should be withdrawn.

Regarding claim 14, Applicants submit that the specification and the figures, particularly Fig. 28, when considered in view of the teachings of Fig. 27, do indeed reasonably convey to the skilled sojourner that Applicants had possession of the invention as claimed in Claim 14 as of the effective filing date. Fig. 28 shows the use of prisms, and contains many of the same elements as shown in Fig. 27. Indeed, as the specification recites, the “construction in accordance with FIG. 27 is a variant of FIG. 28.” (Specification, page 34, first full paragraph.) Fig. 28 is a view of the microscope where the beam paths 1c and 1d are normal to the page (i.e., it is a view of a microscope assembly when looking in the direction of the eyepieces (see, in contrast, Fig. 27))². Thus, Fig. 28 shows beam paths 2a and 2b are superimposable onto third and fourth beam paths, respectively. That is, beam splitters 4a and 4b (meeting the recitation of the second and third beam splitters of claim 12, the first beam splitter being 50a) of Fig. 28 provide the same function as the lower two beam splitters 50a in Fig. 27. In view of this, the rejection of claim 14 under 35 U.S.C. §112, first paragraph, should also be withdrawn.

¹ Applicants note that rejected claims 12 and 14 were filed with the application, and thus the claims provide written support for themselves prior to the above proffered amendments of these claims.

² Fig. 28 has been amended to include reference numbers of the pertinent beam paths.

Rejections Under 35 U.S.C. § 102

Claims 1 and 3-5 stand rejected under 35 U.S.C. §102(b) as being anticipated by Beste (USP 3,251,933). In response, Applicants have amended claim 1 to clarify that there is one single, non-reflective, rotating shutter as claimed. Claim 1 recites that a single rotating shutter alternately makes a given first and second beam path passable by light or blocks said given first or second beam path. In Beste, two shutters are used to block the first and second beam paths. Applicants submit that this is more than a mere design difference, as Beste specifically teaches that by using two shutters, there is exposure on the image tube at a rate of 1/30 of a second (as opposed to 1/15 of a second with only one shutter) (see Beste, column 3, lines 5-15.) Since Beste fails to teach each and every element of claim 1, claim 1 and claims 3-5, which depend from claim 1, are allowable.

Claim Rejections Under 35 U.S.C. §103(a)

In the Office Action, claim 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Beste in view of Kato (USP 4,827,909), while claims 11 and 12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Martino (USP 5,307,202) in view of Rossire (USP 3,614,314) or Perisic (USP 4,678,298), with claim 14 standing rejected in view of the same when combined with Minns (USP 3,353,892). Applicants respectfully traverse the rejection as to the claims above, and submit that these claims are allowable for at least the following reasons.

Applicants rely on MPEP § 2143, which states that:

[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

It is respectfully submitted that at least the first and third criteria of MPEP § 2143 have not been met in the Office Action.

The Cited References Do Not Suggest All Claim Recitations

Even if the first requirement of MPEP § 2143 was satisfied in the Office Action (which it is not, as explained below), the cited references still do not meet the third requirement, which is that “the prior art reference (or references when combined) must teach or suggest all the claim limitations.”

Claim 2 is allowable in that the Beste reference has the deficiencies described above (and thus fails to anticipate claim 1) and further because Kato does not remedy the deficiencies of Beste. That is, even if the shutter design taught by Kato was incorporated into Beste, two shutters would still be needed, and the recitations of claim 2 would not be achieved.

Claim 11 recites a rotating shutter “for alternately making a given first and second beam path passable by light or alternately blocking said first and second beam path.” In an exemplary embodiment shown in Fig. 27, the rotating shutter 3a first blocks beam path 2a, during which time beam path 2b is passable by light, then the rotating shutter 3a blocks beam path 2b, during which time beam path 2a is passable by light.

The Office Action, correctly recognizing that Martino does not teach the claimed rotating shutter, incorporates the shutters of Rossire or Perisic into Martino to satisfy Martino’s deficiencies by replacing the sliding mirror 13 with a rotating shutter. However, such modification to Martino, even assuming *arguendo* that such a modification would work with Martino, still would not have a rotating shutter “for alternately making a given *first and second* beam path passable by light or alternately blocking *said first and second* beam path.” That is, by modifying Martino in the manner proffered in the Office Action, only one beam path is blocked (the beam path passing through the space occupied by mirror 13). Still further, there is no alternate blocking of another beam path when the beam path passing through the space occupied by the mirror 13 is not blocked. Therefore, even after modifying Martino as detailed in the Office Action, each and every element of amended claim 11 is still

not taught, and thus, the third requirement of MPEP § 2143 is not satisfied in the Office Action. Claim 11 and thus the claims that depend from claim 11 are allowable.

Lack of Suggestion or Motivation to Modify or Combine the References

MPEP § 2143.01 states that “the prior art *must* suggest the desirability of the invention.” (MPEP § 2143.01, subsection 1, emphasis added.) Applicants respectfully submit that the motivation proffered to arrive at the invention of at least claims 12 and 14 is insufficient to sustain a *prima facie* case of obviousness.

Regarding claim 2, the Office Action states that “it would have been obvious . . . to replace the two rotating shutters of Beste with the single shutter of Kato to reduce the number of parts and save money” and that “the rotation speed would be reduced to keep the same timing interval between images.” First, Applicants respectfully submit that the Office Action has not explained how one of ordinary skill would know **how** to implement a single shutter in Beste. Second, Applicants submit that Beste teaches away from utilizing a single shutter to obtain a reduction of speed, and that the ordinary sojourner would not have found it obvious to replace the two shutters of Beste with a single shutter. This is because, as noted above, Beste explicitly teaches that by utilizing two shutters, the exposure upon the image tube is doubled from once every 1/15 of a second (the rotation speed of the shutters) to once every 1/30 of a second (two times for every single rotation of the shutters). That is, by using two shutters, the rotation speed of Beste can be reduced while obtaining the same number of exposures. Even if the shutter geometry of Kato is used in Beste, the ordinary sojourner would see the teachings of Beste as teaching away from a single shutter.

Regarding claim 12, the Office Action states that “it would have been obvious . . . to insert a beam splitter into the first and second beam paths [of Martino] in order for another viewer to see the object or another detector/camera to record it,” but cites nothing in the prior art that provides motivation to modify Martino that would support such a rationale.

Regarding claim 14, the Office Action states that “it would have been obvious . . . to use well-known prisms in the system of Martino . . . to guide optical image information to the eyepieces.” Applicants respectfully submit that this is impermissible hind sight on the part of the PTO. Applicants provide a rationale for utilizing a prism in their invention. Indeed,

Applicants claim that “the prisms guide the image information into respective eyepieces.” It appears that the office action is utilizing the Applicants’ own disclosure (and claims) against them for motivation to modify the prior art. While it is permissible to use other references to teach missing elements of the prior art, it is impermissible to use an Applicants’ application against them for motivation to combine references.

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MPEP § 2143.01, subsection 6 states that “the proposed modification cannot change the principle of operation of a reference – If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810 (CCPA 1959).” In *Ratti*, the CCPA held that the “suggested combination of references would require a substantial reconstruction and redesign of the elements shown in the primary reference.” This substantial redesign would have resulted in changing a rigid seal to a resilient seal.

A principle of operation of the Beste reference is to use two shutters to reduce by half the rotation speed of the shutters to obtain the same number of exposures. This is why Beste utilizes a left and right imaging lens 22, 24. Because Beste relies on a principle of operation that two shutters permit the rotation speed of the shutters to be reduced by half that which would be needed for one shutter, replacing the dual shutters of Beste with a single shutter would change the principle of operation of Beste. Thus, a *prima facie* case of obviousness has not been established against claim 2.

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A principle of operation of the Martino reference is that the beam paths to at least one of the observer’s eyes is not interrupted (specifically, the right eye of Fig. 1). This beam path is identified in the Office Action as the first beam path. In contrast, a beam path to the left eye is interrupted by the sliding movement of the mirror 13. This interrupted beam path is identified in the Office Action as the second beam path. If Martino was modified so that a shutter was located in the first and second beam paths (as opposed to only the second beam path, which is what results by merely replacing the mirror 13 with a shutter, as proffered in the Office Action) so that those beam paths were alternately interrupted, it would change the

principle of operation of Martino, a result that is forbidden in establishing a *prima facie* case of obviousness. Since modifying Martino to utilize the shutter and achieve the result as claimed changes the principle of operation of Martino, “the teachings of [Martino] are not sufficient to render the claims *prima facie* obvious.”

New Claims

As seen above, Applicants have added new claims 18-37. These claims are allowable for the pertinent reasons discussed above. Claims 18-25 positively recite a stereomicroscope. Claims 26-37 provide additional recitations regarding superimposition of the image generated by the display device onto beam paths with respect to the rotating shutter. Support for these new claims can be found in the specification, specifically, among other places, Fig. 27.

It is respectfully submitted that these new claims read on the elected subject matter.

Conclusion

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

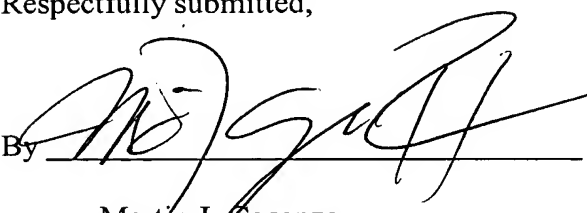
Examiner Fineman is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

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